

Fig. 1

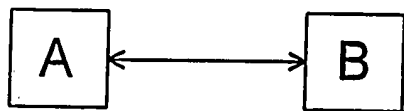


Fig. 2A

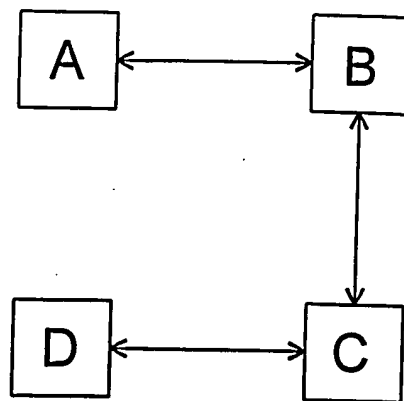


Fig. 2B

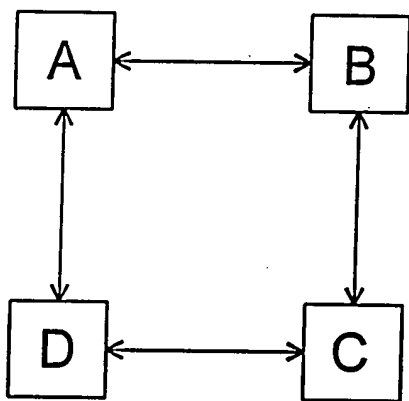


Fig. 2C

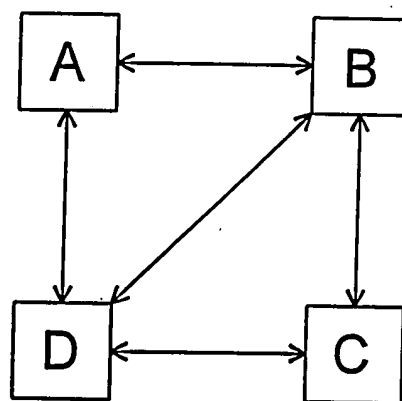


Fig. 2D

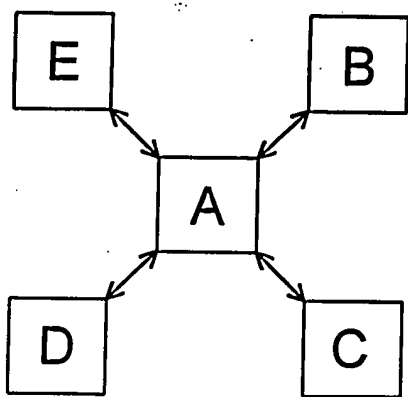


Fig. 2E

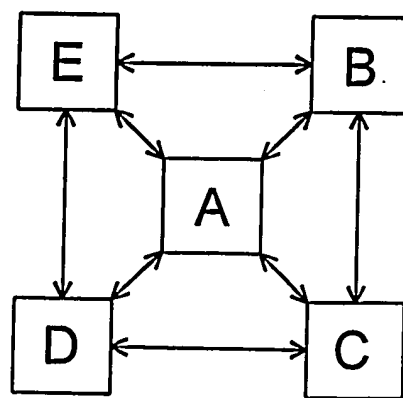


Fig. 2F

100

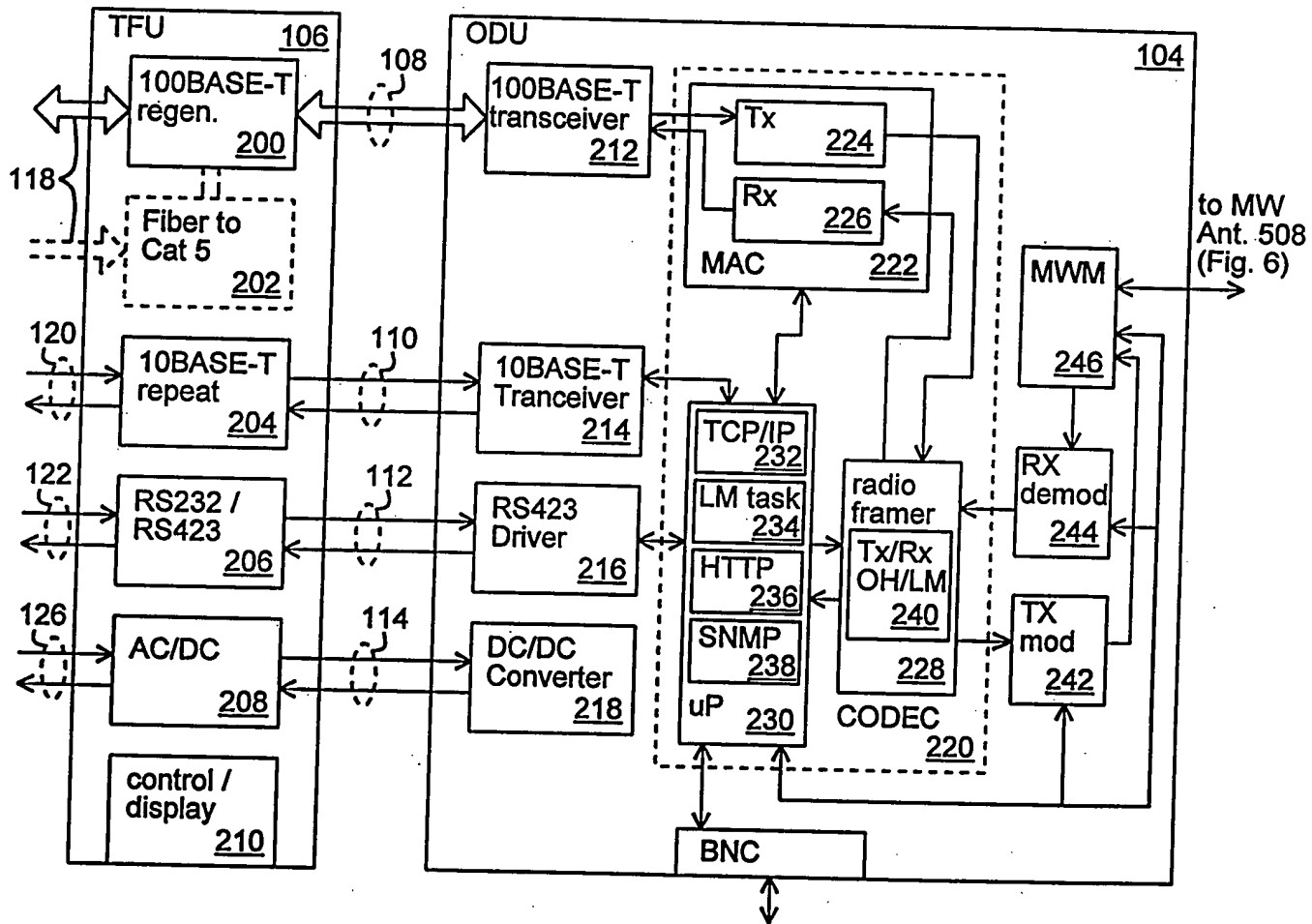


Fig. 3

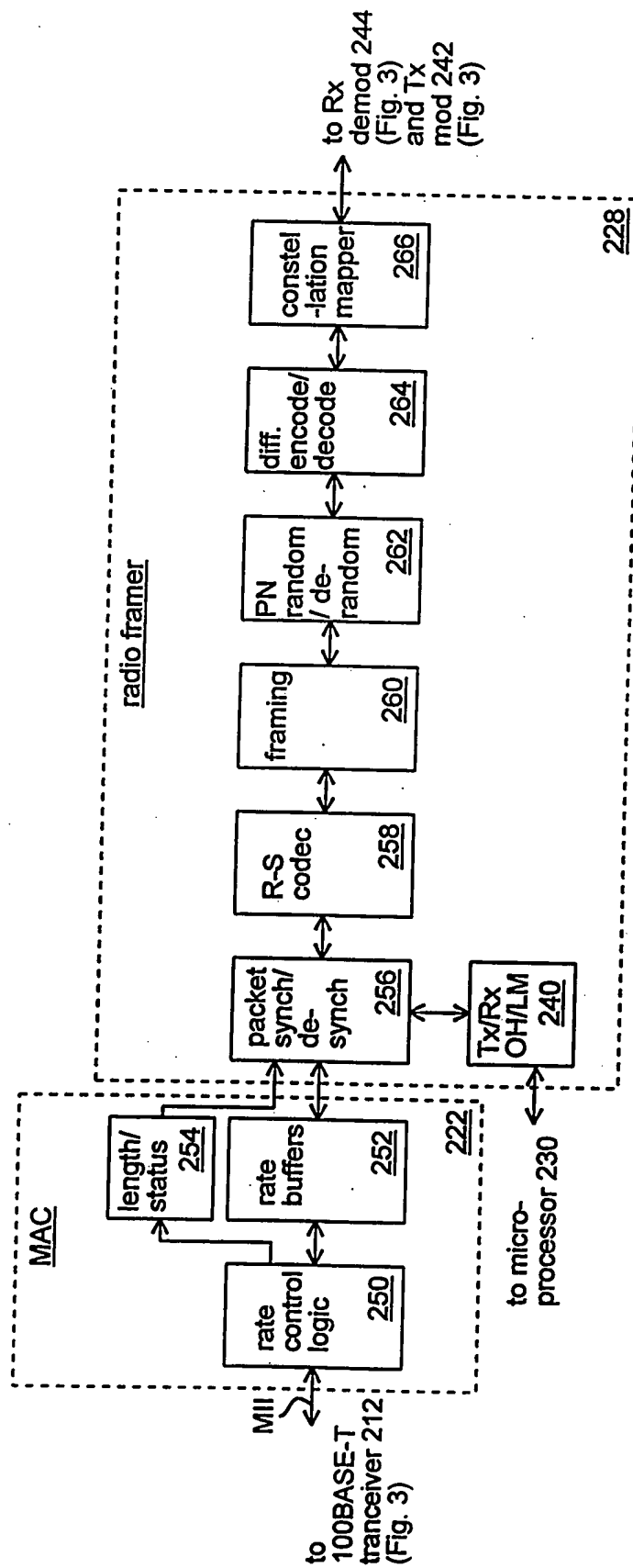


Fig. 4

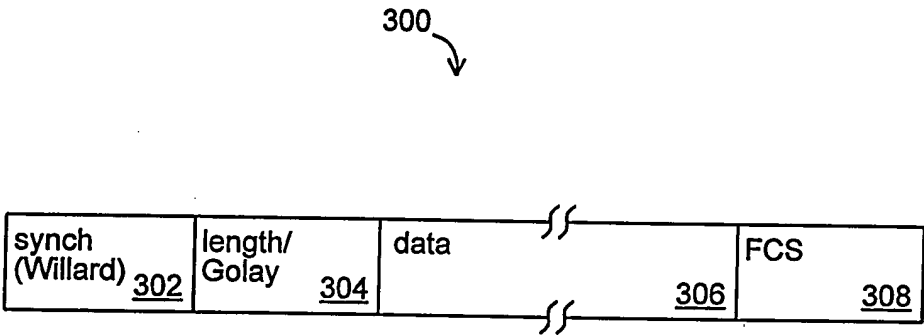


Fig. 5

0945064-092998

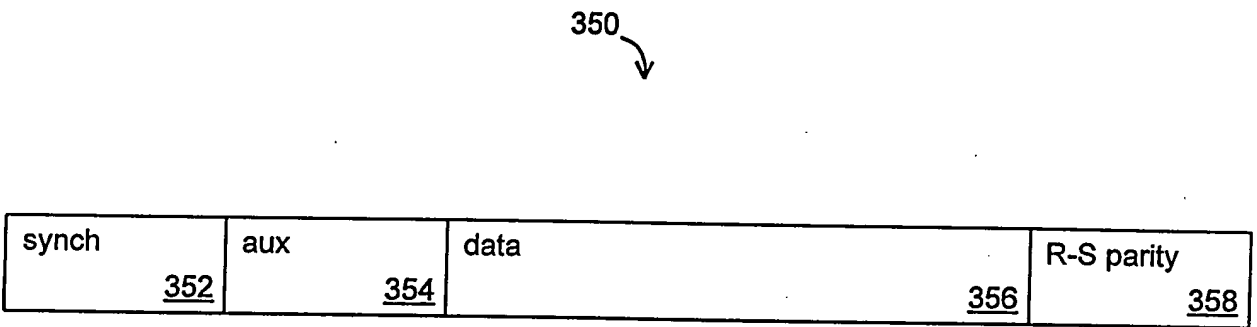


Fig. 6

09158764-52398  
352

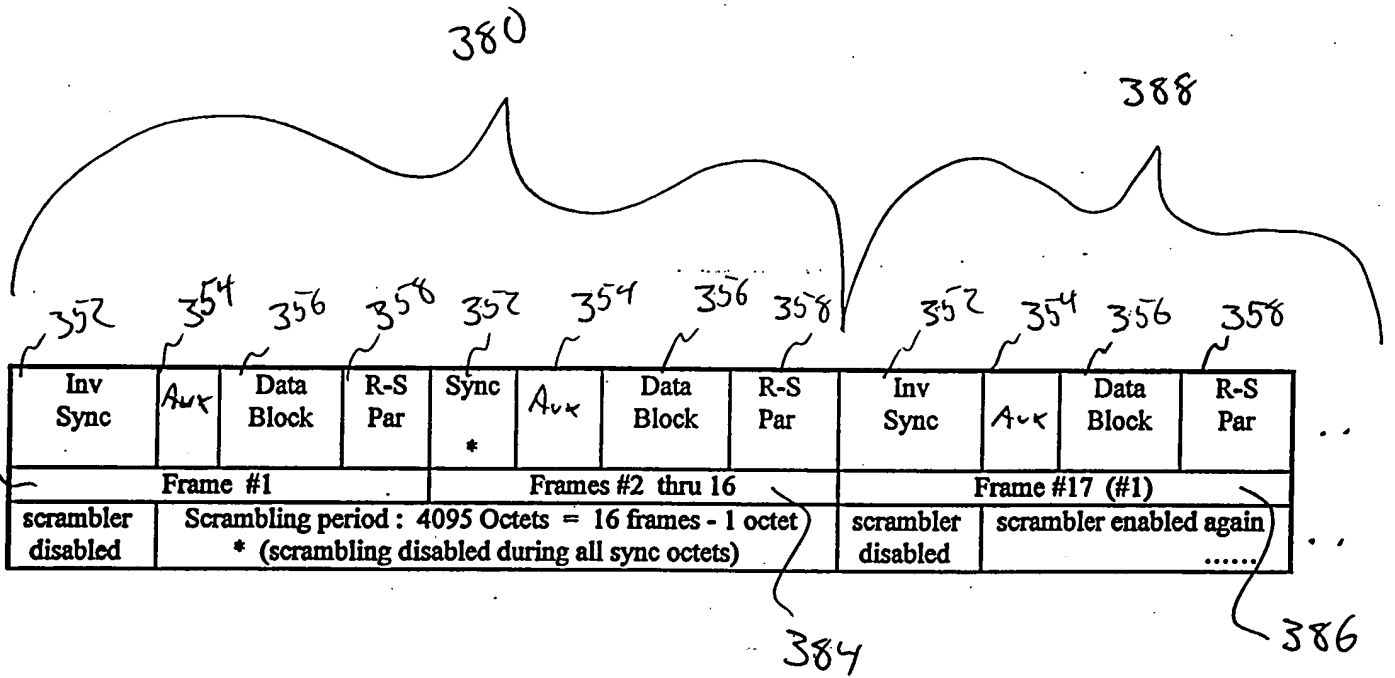


Fig. 7

262 ↓

00152764-002328

From framing block 258 (Fig. 4)

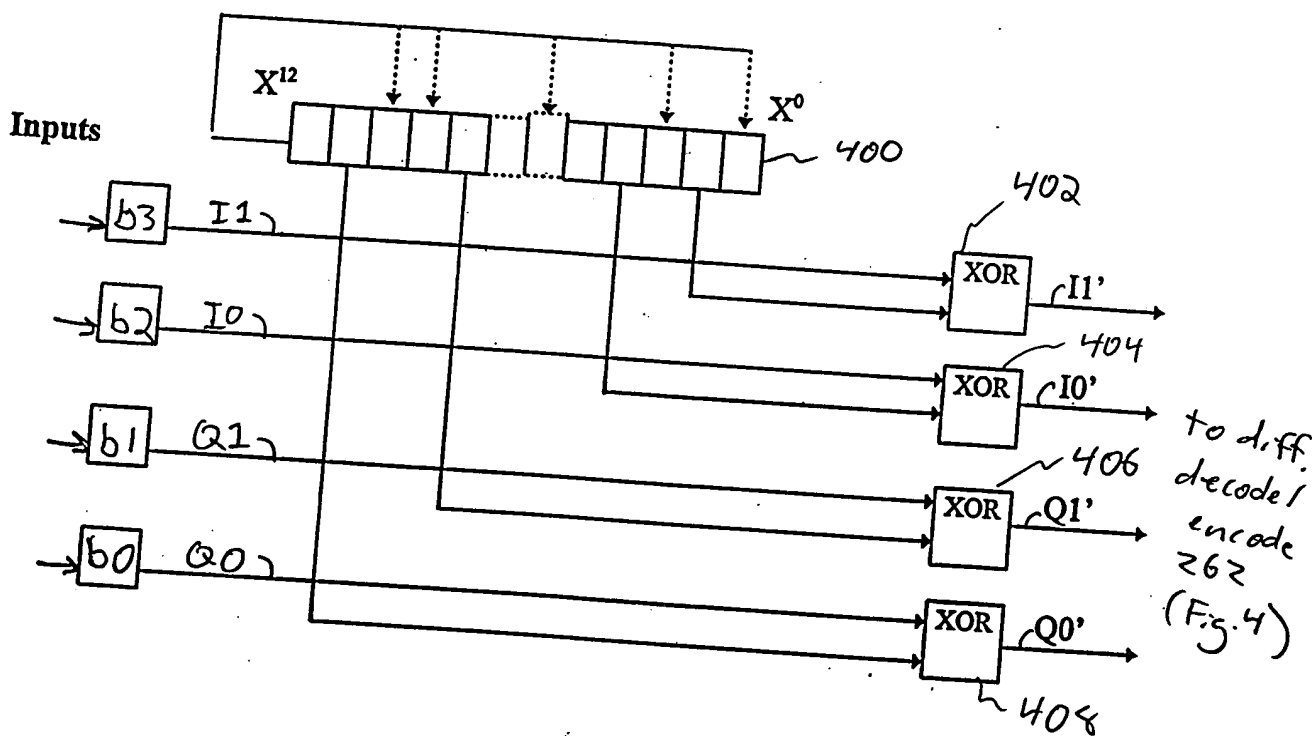


Fig. 8



$Quad = 2 * I1' + Q1' ;$       -- Map Quadrant Tag [0 1 2 3]  
 $Phi = [0 1 3 2] ;$       -- to Angle = [0 1 3 2]  
 $Angle = Phi(Quad)$   
 $Sum = (Sum + Angle) \text{ modulo } 4 ;$   
 $I1'' = \text{bit 1 of Sum} ;$        $I0'' = I0' ;$   
 $Q1'' = \text{bit 0 of Sum} ;$        $Q0'' = Q0' ;$

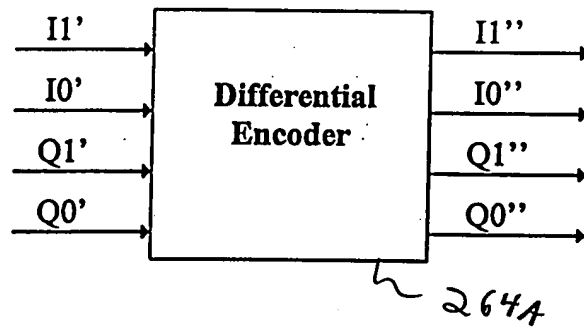


Fig. 9

$\text{Angle} = 2 * \text{RxIs}' + \text{RxQs}' ;$   
 $\text{Phi}' = [0 \ 1 \ 3 \ 2] ;$   
 $\text{Diff} = (\text{Phi}'(\text{Angle}) - \text{Phi}_0) \text{ modulo } 4 ;$   
 $\text{Phi}_0 = \text{Phi}'(\text{Angle}) ;$   
 $\text{RxIs} = \text{bit } 1 \text{ of } \text{Phi}'(\text{Diff}) ;$   
 $\text{TxIs} = \text{bit } 0 \text{ of } \text{Phi}'(\text{Diff}) ;$   
 $\text{RxIm} = \text{RxIm}' ;$   
 $\text{RxQm} = \text{RxQm}' ;$

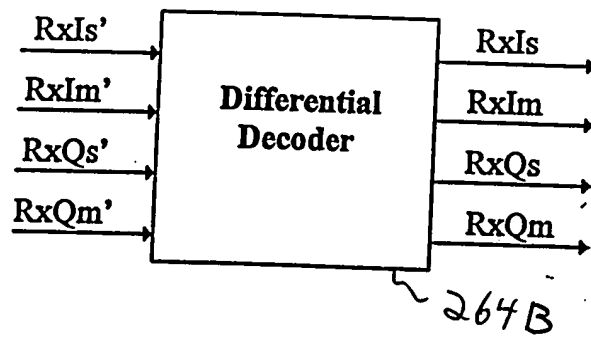


Fig. 10

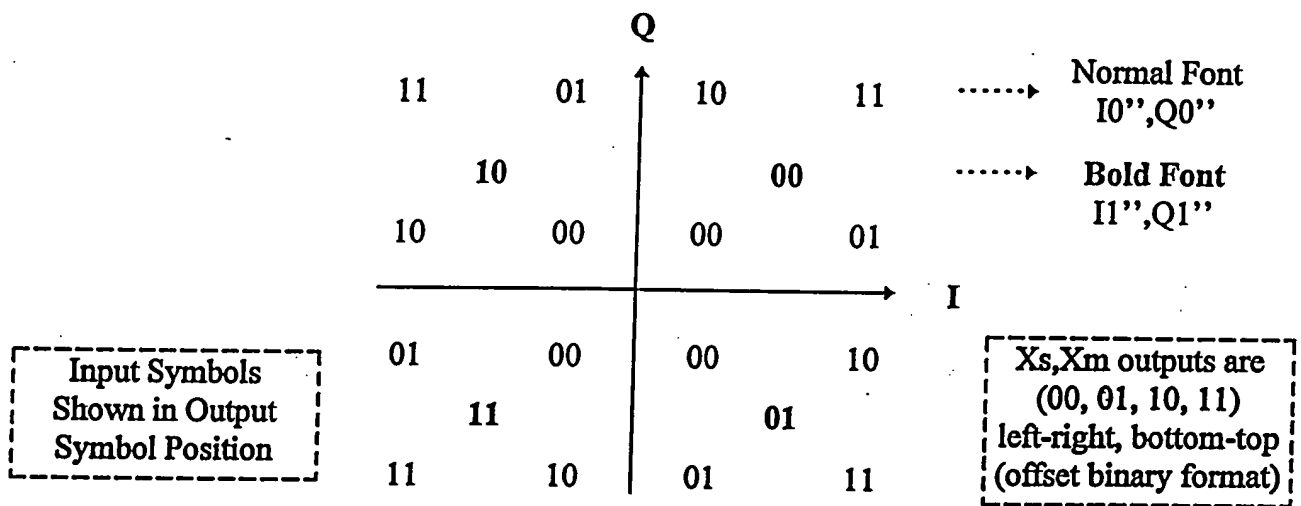
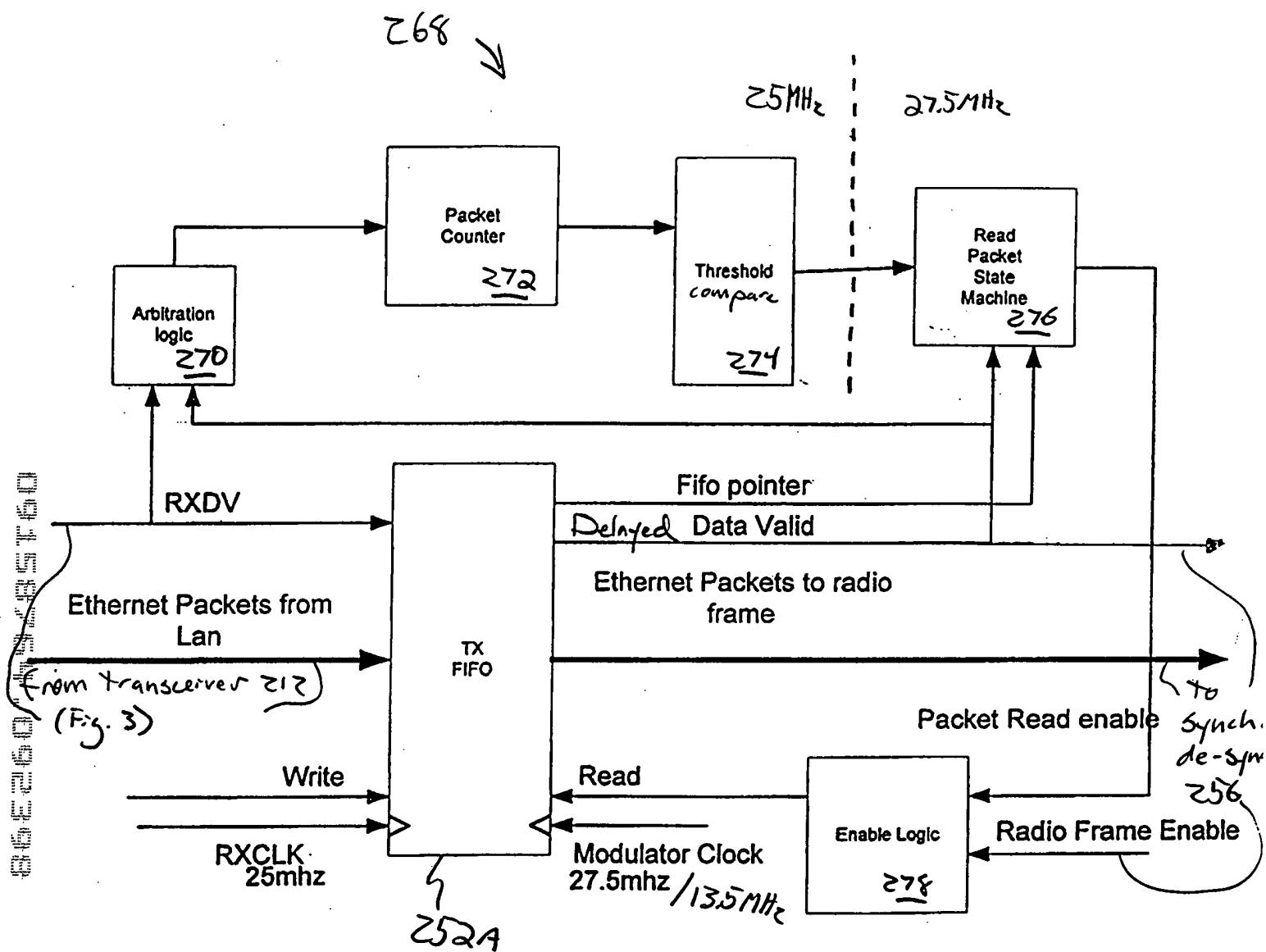


Fig. 11



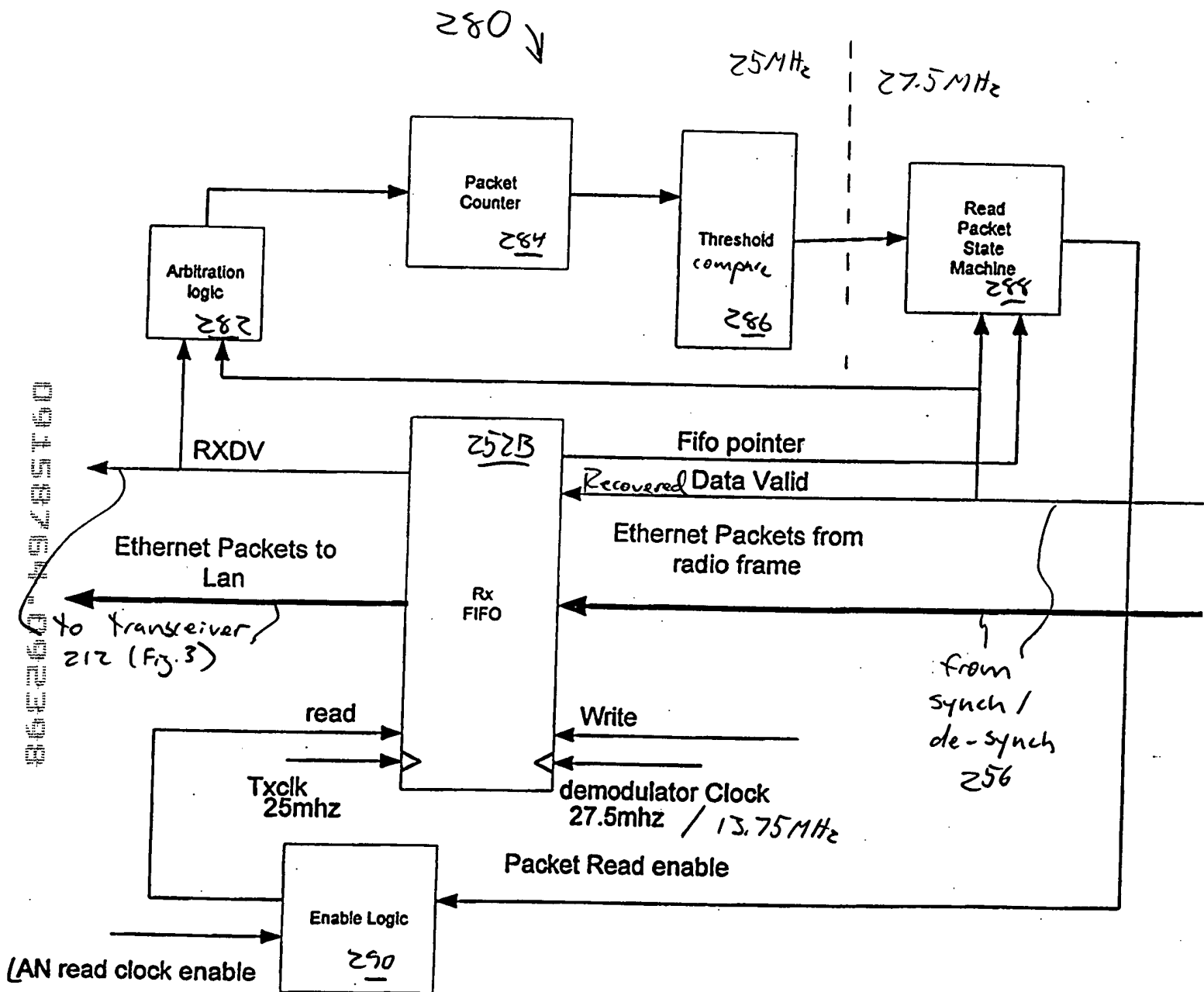


Fig. 13

09158764.09260

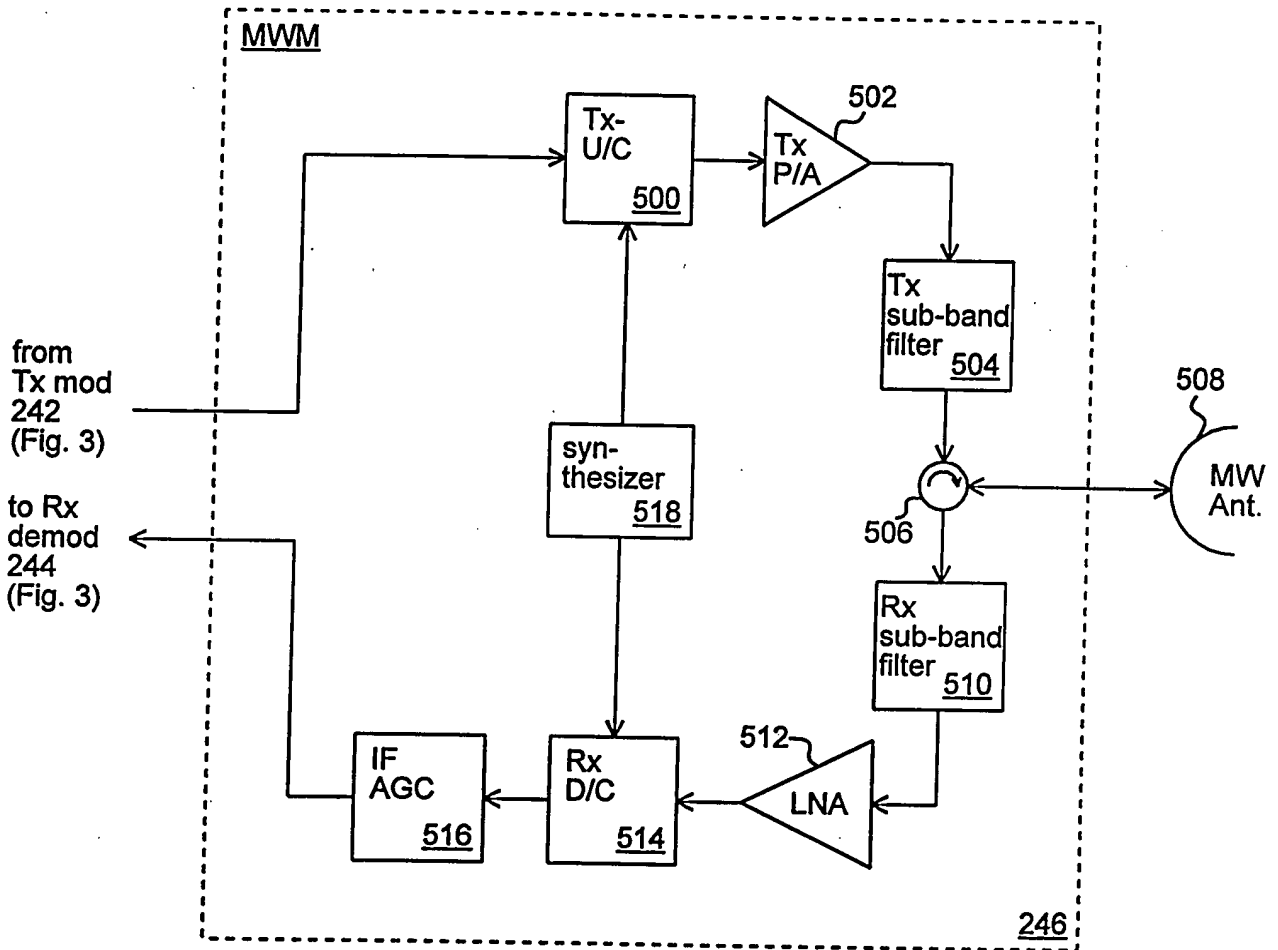


Fig. 14

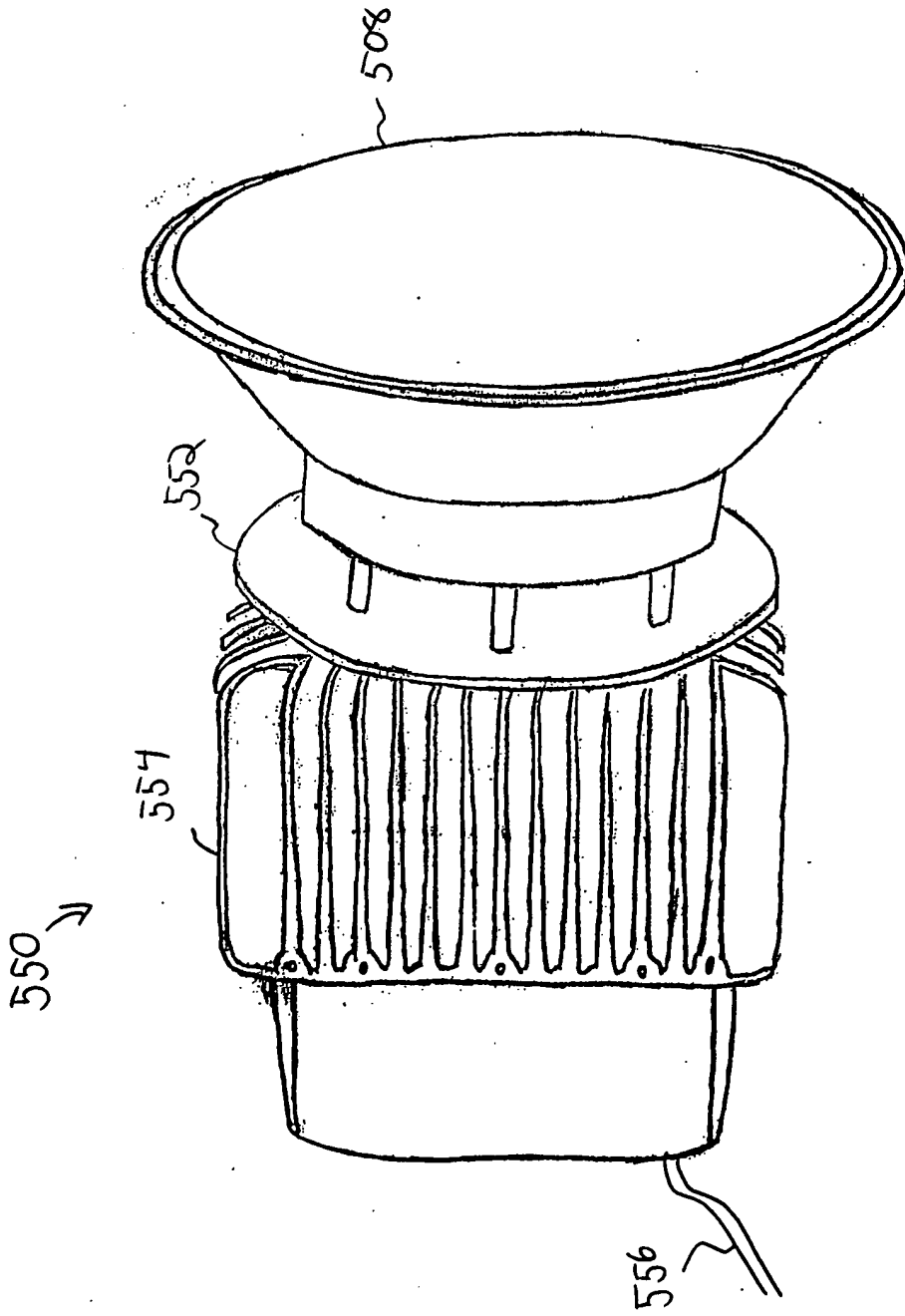


Fig. 15

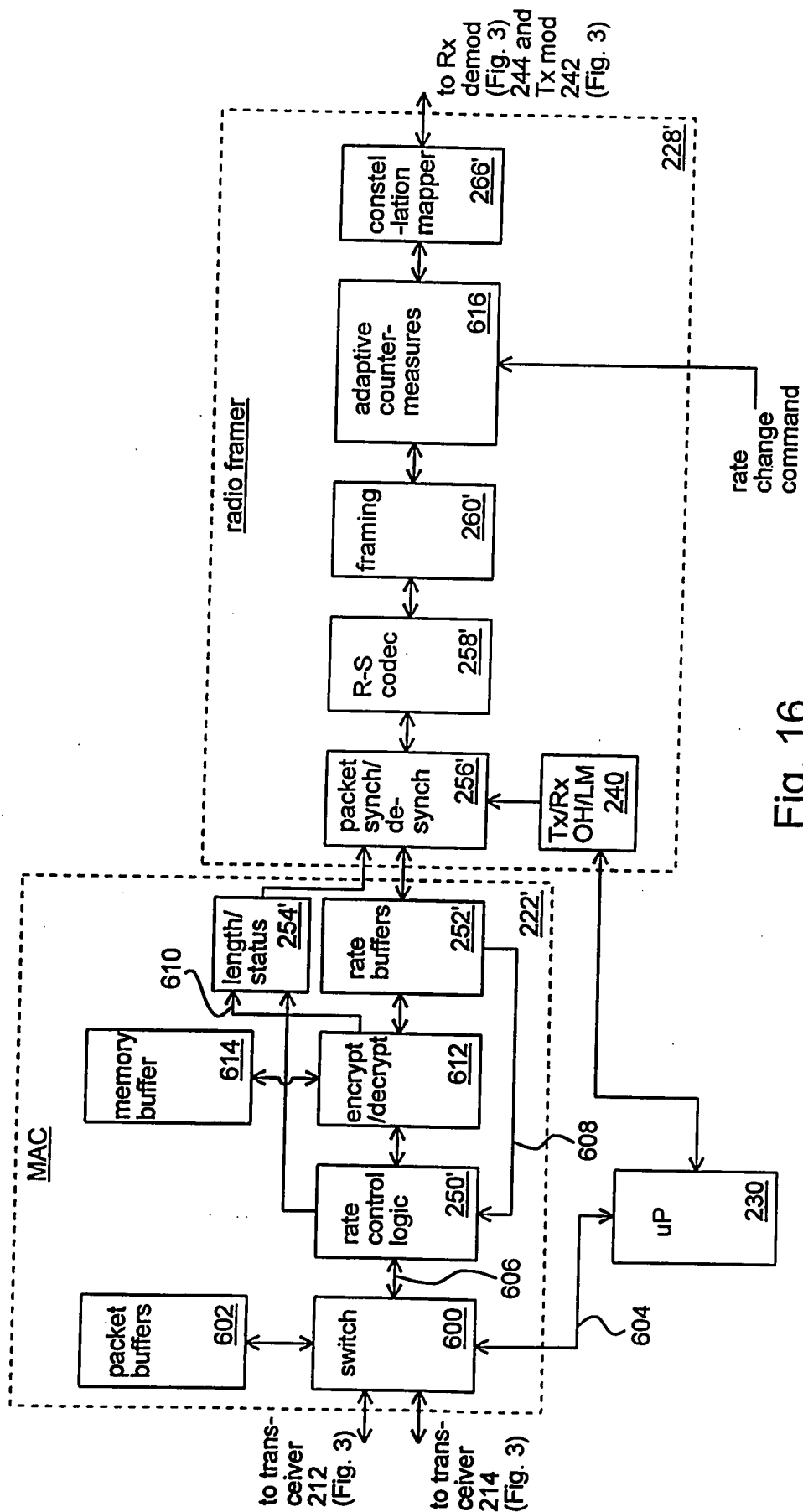


Fig. 16



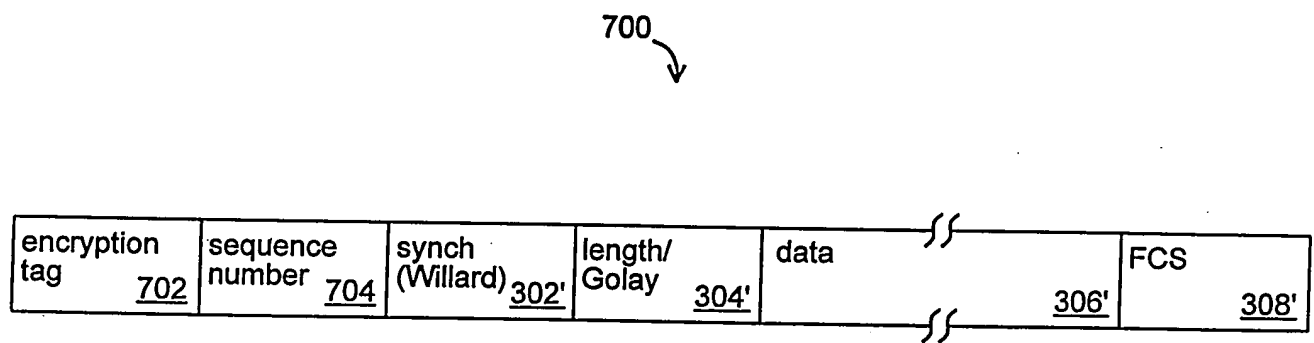
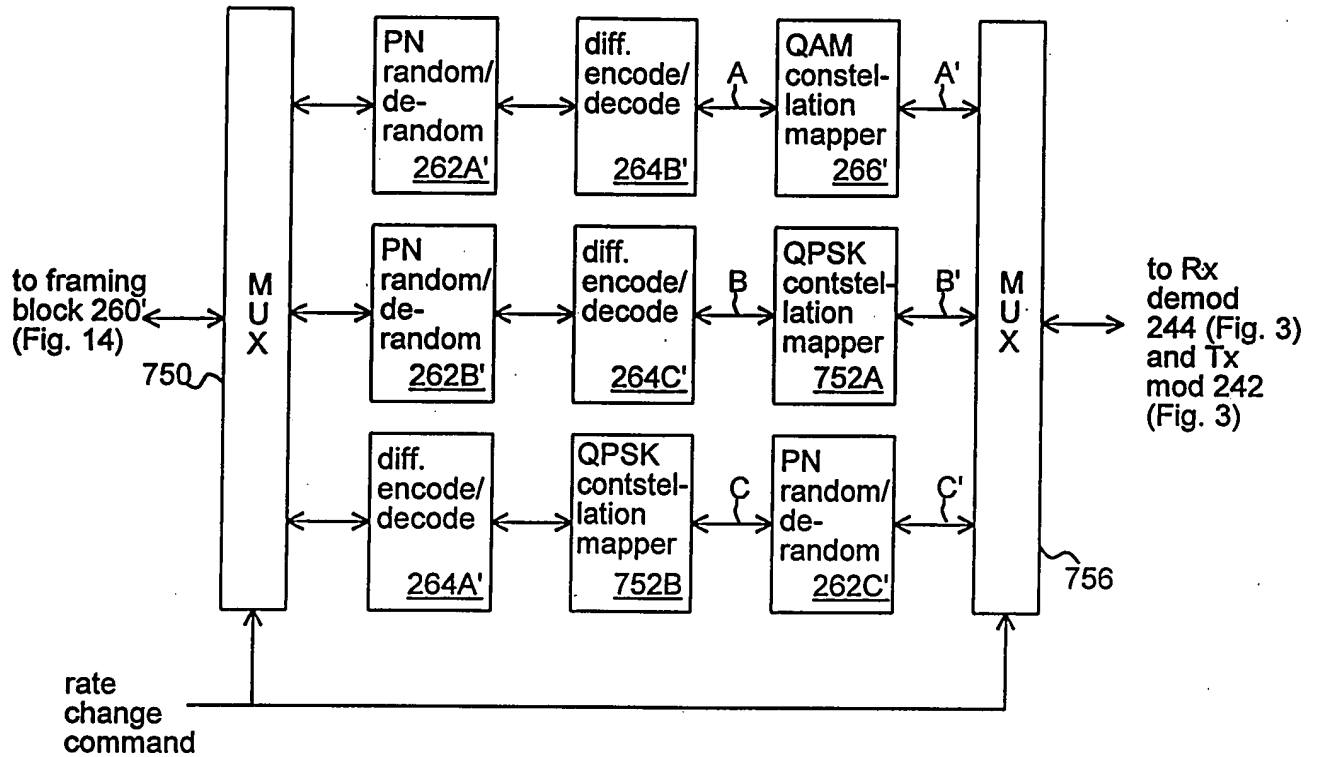


Fig. 17

616



A: data rate = 4 bits/symbol, symbol rate = 27.5 Msymbols (mega-symbols)/second

A': data rate = 4 bits/symbol, symbol rate = 27.5 Msymbols/second

B: data rate = 2 bits/symbol, symbol rate = 27.5 Msymbols/second

B': data rate = 2 bits/symbol, symbol rate = 27.5 Msymbols/second

C: data rate = 2 bits/symbol, symbol rate = 3.4375 Msymbols/second

C': data rate = 2 bits/symbol, symbol rate = 27.5 Msymbols/second

Fig. 18

09158764-09295760

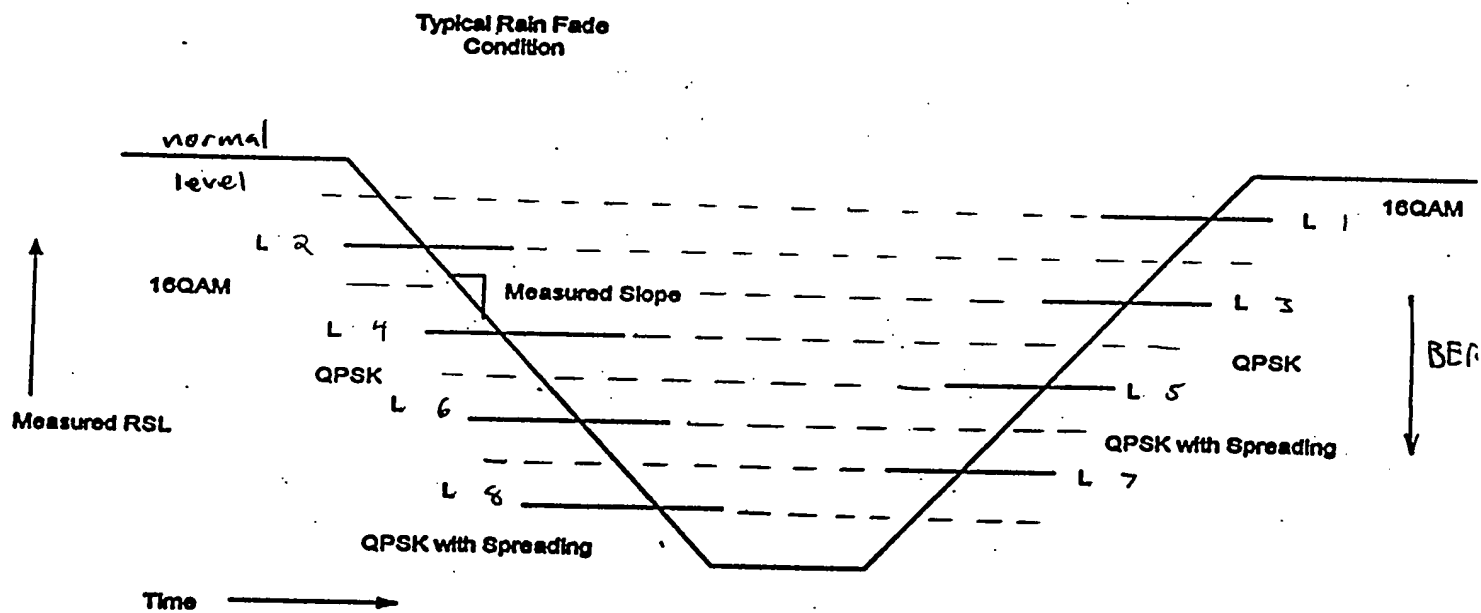


Fig. 19

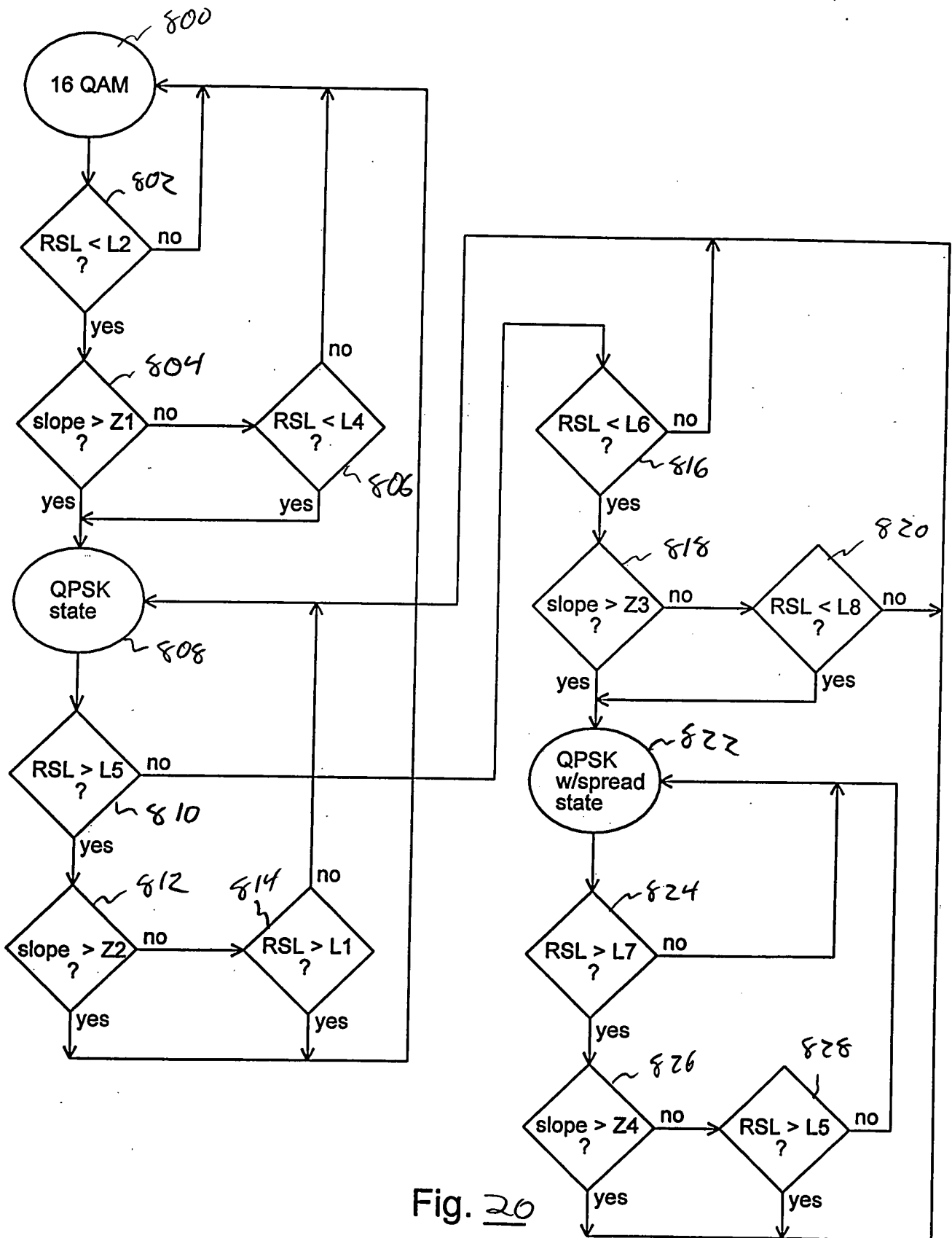


Fig. 20

09158764-092398

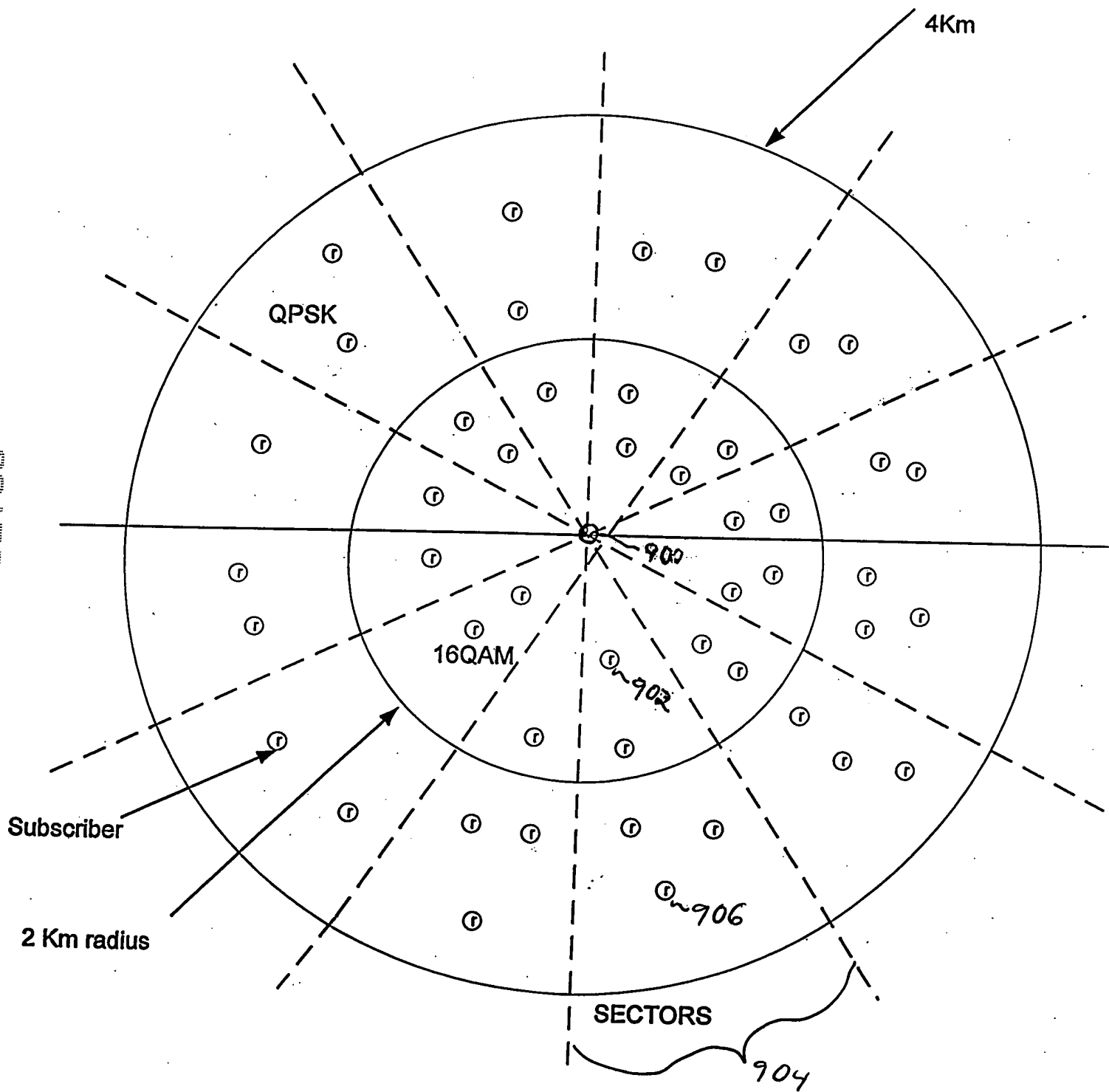


Fig. 21

09158764.092398  
86E260.49285T60

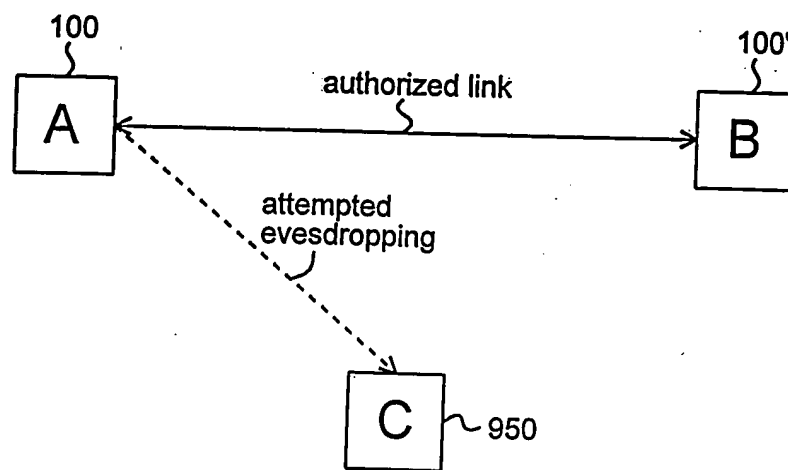


Fig. 22

854260" 49285T60

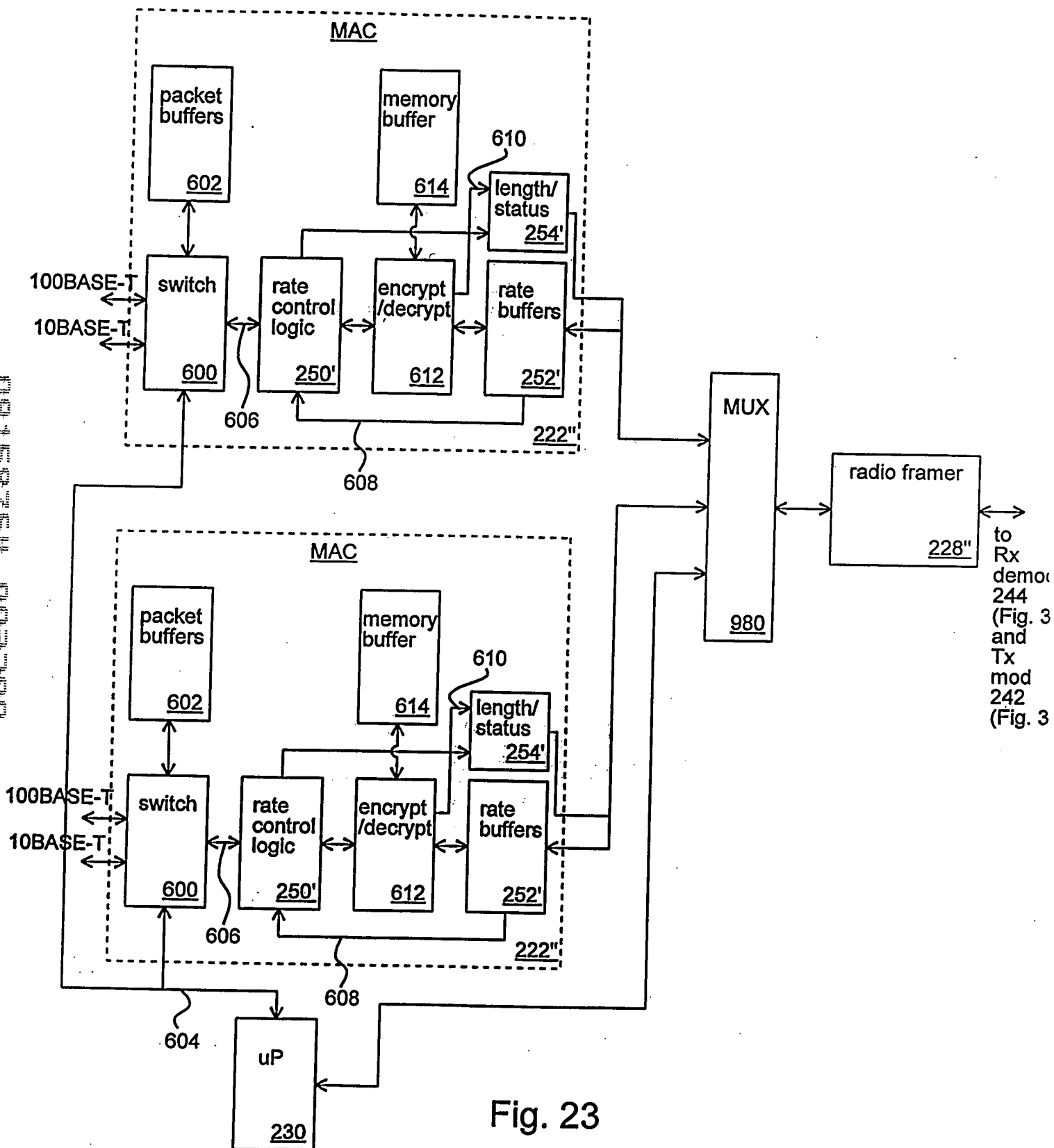


Fig. 23